4070-317 CIP

In the Claims

1-20 (Previously cancelled)

21. (Previously amended and Allowed) A scrubbing process for the abatement of a gas component in a gas stream containing same, said scrubbing process comprising introducing the gas stream and a scrubbing liquid to a first gas/liquid contacting chamber and effecting gas/liquid contacting therein, wherein said process additionally comprises flowing the effluent gas from the first contacting chamber to a second gas/liquid contacting chamber and introducing to said second contacting chamber a second scrubbing liquid for gas/liquid contacting therein, wherein the first gas/liquid contacting in the first chamber comprises cocurrent flow of the gas stream and scrubbing liquid and wherein the second gas/liquid contacting in the second contacting chamber comprises countercurrent flow of the gas stream and the second scrubbing liquid through the second contacting chamber, wherein said second contacting chamber has a smaller diameter than that of said first contacting chamber, and wherein the second contacting chamber has a lower water flow rate than the first contacting chamber.

22-25. (Previously cancelled)

26. (Previously presented and Allowed) A scrubbing process for treatment of an effluent gas including acid gas components and water-scrubbable components other than acid gas component, said process comprising:

scrubbing the effluent gas with a neutral aqueous scrubbing liquid in a first scrubbing zone to remove the acid gas components of the effluent gas, with co-current flow contacting of the aqueous scrubbing liquid and effluent gas with one another to yield effluent gas reduced in acid gas components;

flowing the effluent gas reduced in acid gas components from the first scrubber unit to a second scrubber unit; and

scrubbing the effluent gas with a second aqueous scrubbing liquid in the second scrubbing zone to remove water-scrubbable components other than acid gas component from the effluent gas, with counter-current flow contacting of the second aqueous scrubbing liquid and effluent gas with one another to yield effluent gas reduced in acid gas components and water-scrubbable components other than acid gas components, wherein said second scrubbing zone has a smaller

diameter than that of said first scrubbing zone, and wherein the second scrubbing zone has a lower water flow rate than the first scrubbing zone chamber.

- 27. (Previously presented and Allowed) The process according to claim 26, wherein the first scrubbing zone is a vessel enclosing an interior volume containing a bed of packing medium.
- 28-50. (Previously cancelled)
- 51. (Previously presented and Allowed) The process according to claim 26 wherein the scrubbing liquid in the second scrubbing zone contains no chemical injection agent.
- 52. (Previously presented and Allowed) The process according to claim 21 wherein the scrubbing liquid in the first contacting chamber and second chamber is water.
- 53. (Previously presented and Allowed) The process according to claim 21 wherein the first scrubbing liquid contains no chemical injection agent.
- 54. (Previously presented and Allowed) The process according to claim 21 wherein the second scrubbing liquid contains no chemical injection agent.
- 55-56. (Previously cancelled)
- 57. (Currently amended) The process according to claim 21 wherein the diameter of the second contacting chamber is 0.19 about 0.20 the diameter of the first contacting chamber.
- 58. (Currently amended) The process according to claim 26 wherein the diameter of the second scrubbing zone is <u>0.19</u> about 0.20 the diameter of the first scrubbing zone.
- 59-60. (Previously cancelled)
- 61. (Currently cancelled)
- 62-64. (Previously cancelled)